

Garant

GARANT Master INOX solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 20mm



Order data

Order number	203117 20
GTIN	4062406783709
Item class	11Z

Description

Version:

High-performance milling cutter with **irregular cutter spacing** and **irregular helical pitch**. **High process reliability** and **better chip evacuation** due to **increased flutes**. **Optimised carbide substrate** for **higher bending strength** and **extreme tool life**, even in stainless steels in the high-performance field, especially duplex. **Chip separator** positioned offset **at cutting edges**.

Advantage:

Lower pull-out forces due to reduced helix angle.

Note:

h_{\max} : The values stated in the table are maximum values. For finishing operations we recommend items No. 204012, 204014, 204015, 204016, 204018 and 204019.

$a_{e\max} = 0.1 \times D$ for TPC machining.

Technical description

Flute length L_c	60 mm
Recess $\varnothing D_1$	19.8 mm
Corner chamfer width at 45°	0.4 mm
Balance quality with shank	G 2.5 with HB
Overall length L	126 mm
Corner chamfer angle	45 degrees
Direction of infeed	horizontal, oblique and vertical

Overhang length L_1 incl. recess	70 mm
Shank	DIN 6535 HB to h6
Tolerance nominal \varnothing	e8
Helix angle	36 degrees
Average chip thickness h_{\max} for TPC milling in INOX < 900 N/mm ²	0.12 mm
Shank $\varnothing D_s$	20 mm
Cutting edge $\varnothing D_c$	20 mm
No. of teeth Z	6
Number of chip separators	2
Series	Master INOX
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width a_e for milling operation	0.1×D
Through-coolant	no
Machining strategy	TPC
Colour ring	blue
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel < 500 N/mm ²	Suitable only under restricted conditions	380 m/min	P
Steel < 750 N/mm ²	Suitable only under restricted conditions	340 m/min	P

Steel < 900 N/mm ²	Suitable only under restricted conditions	300 m/min	P
Steel < 1100 N/mm ²	Suitable only under restricted conditions	230 m/min	P
INOX < 900 N/mm ²	suitable	240 m/min	M
INOX > 900 N/mm ²	suitable	170 m/min	M
Ti > 850 N/mm ²	suitable	140 m/min	S
wet maximum	suitable		
wet minimum	Suitable only under restricted conditions		
Air	suitable		